TEODOROVICH, G.I., doktor geol.-miner. nauk, otv. red.; SOLODOV, N.A., red.

[General principles of the formation of the bituminous series based on the example of the Volga-Ural province] Obshchie printsipy formirovaniia bituminoznykh svit na primere Volgo-Ural'skoi provintsii. Moskva, Nauka, 1965. 201 p. (MIRA 18:9)

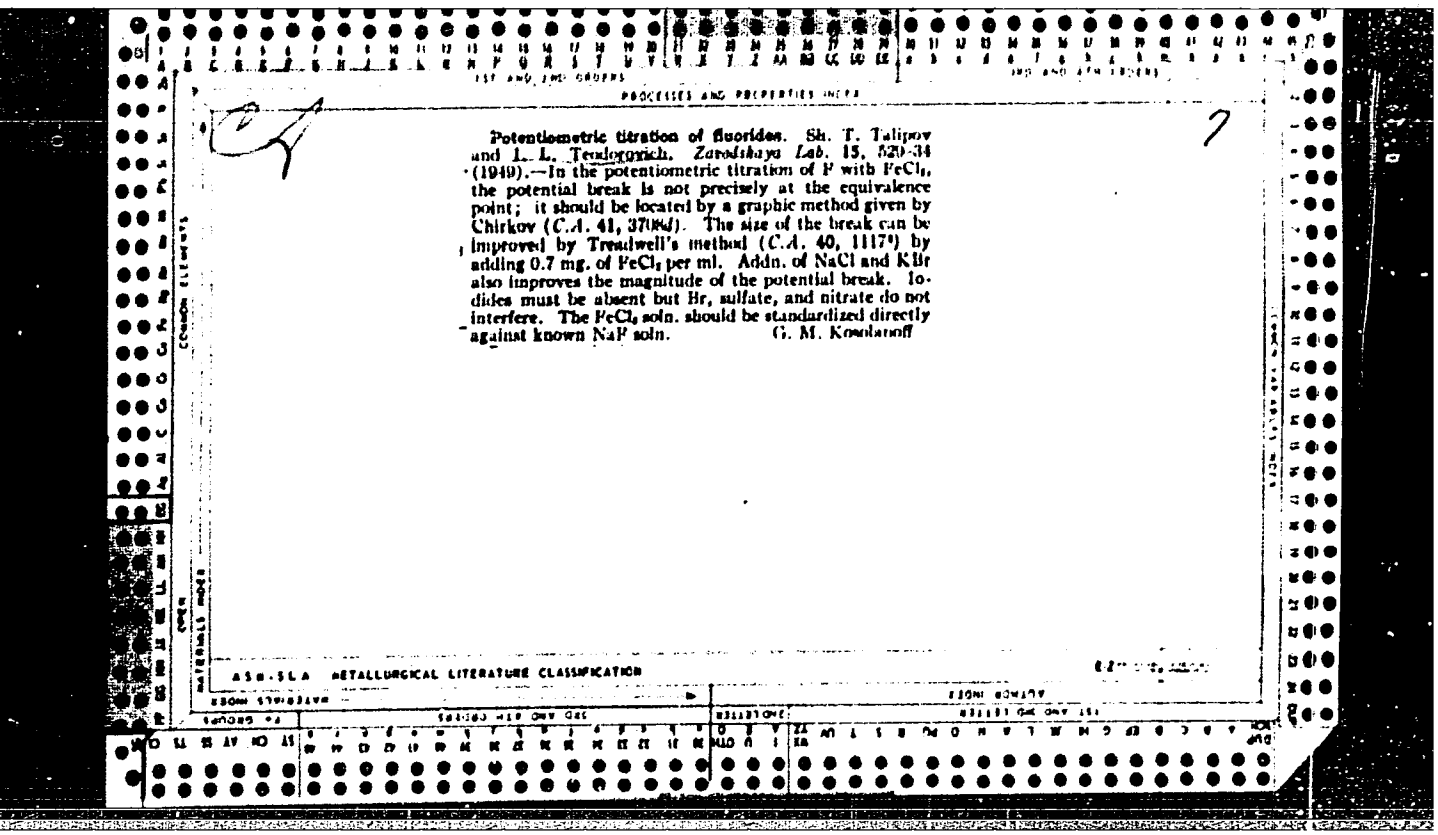
1. Moscow. Institut geologii i razrabotki goryuchikh iskopayemykh.

TEOEDORESCU, Gh., prof. (Bucuresti); IONESCU, N., prof. (Bucuresti)

School excursions along the littoral of the Black Sea. Natura Geografie 13 no.3:64-70 My-Je '61.

TEODOROVICH, I.

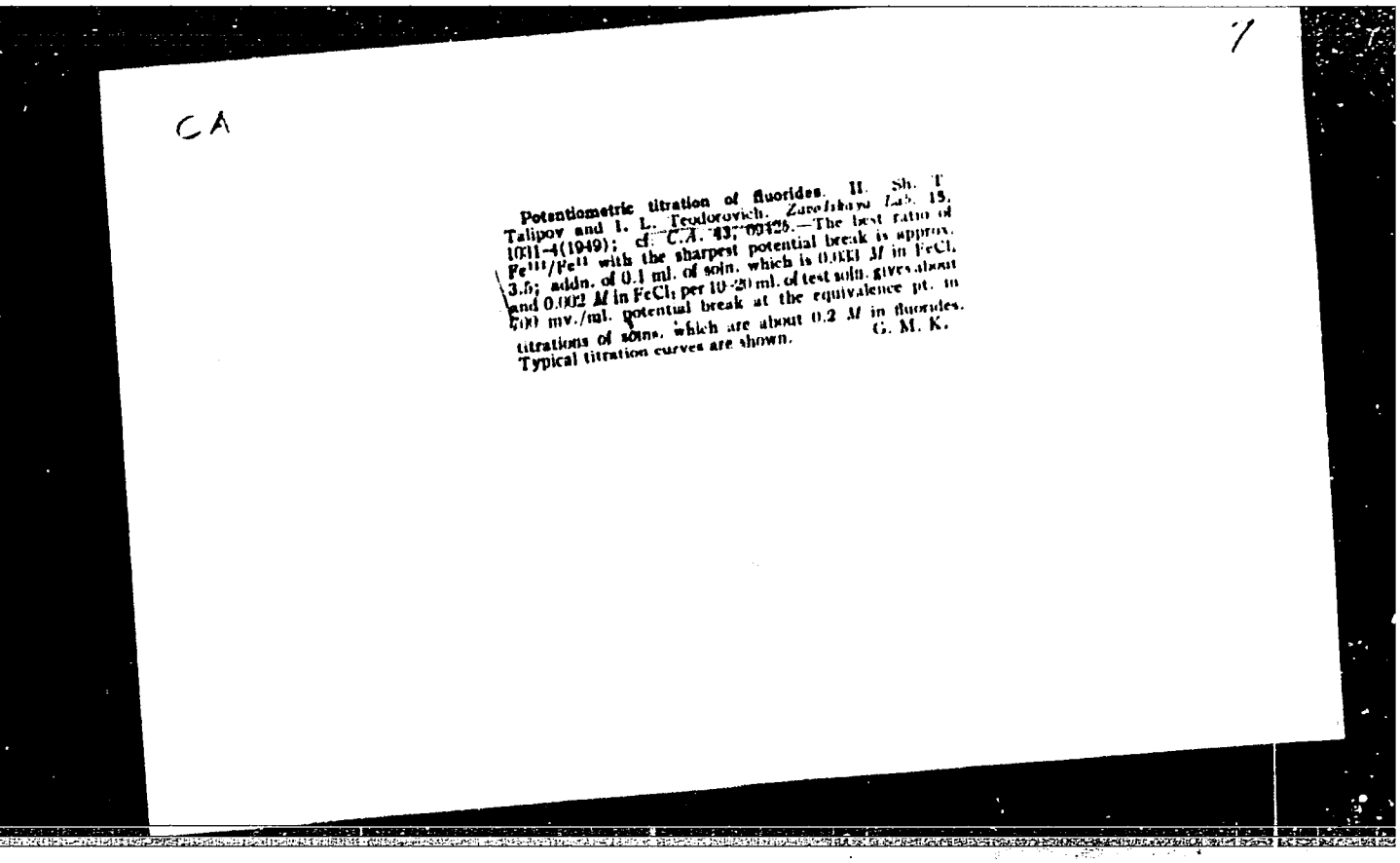
ORIGIN OF DOLOMITE BY THE FORMATION OF SEDIMENT. . I. Teodorovich. Compt. rend. acad. sci. U.R.S.S., 53, 825-28 (1946); abstracted in Chem. Zentr., 118 [1] 443 (1947). — Two types of dolomite are distinguished: dolomites which are formed under neutral conditions of the sea, and those originating in high salt-content lagoons, in concentrated sea water. The solubilities of $CaCO_3$ and $MgCO_3$ are similar in warm sea water. With this increase of concentration, the optimum conditions of dolomite formation are present. M.Ha.



Potentiometric titration of fluorides. Sh. T. Talipov and L. L. Teodorovich. *Zavodskaya Lab.* 15, 520-34 (1949).—In the potentiometric titration of F with $FeCl_3$, the potential break is not precisely at the equivalence point; it should be located by a graphic method given by Chirkov (*C.A.* 41, 3708*d*). The size of the break can be improved by Treadwell's method (*C.A.* 40, 1117[9]) by adding 0.7 mg. of $FeCl_3$ per ml. Addn. of NaCl and KBr also improves the magnitude of the potential break. Iodides must be absent but Br, sulfate, and nitrate do not interfere. The $FeCl_3$ soln. should be standardized directly against known NaF soln. G. M. Kosolapoff

CA

Apparatus for the determination of small amounts of arsenic. I. L. Teodorovich. *Zavodskaya Lab.* 15, 746 (1949).—The vertical tube of the usual AsH_3 detection app., provided with HgBr cotton filter plugs, is closed by a perforated stopper which is slit horizontally for insertion of the standard Hg paper; the slit stopper is held together by a rubber band. G. M. Kosolapoff



CA

1

Potentiometric titration of fluorides. II. Sh. T. Talipov and I. L. Teodorovich. *Zavodskaya Lab.* 15, 1011–4(1949); cf. *C.A.* 43, 09425.—The best ratio of Fe^{III}/Fe^{II} with the sharpest potential break is approx. 3.5; addn. of 0.1 ml. of soln. which is 0.033 *M* in $FeCl_3$ and 0.002 *M* in $FeCl_2$ per 10–20 ml. of test soln. gives about 500 mv./ml. potential break at the equivalence pt. in titrations of solns. which are about 0.2 *M* in fluorides. Typical titration curves are shown. G. M. K.

TEODOROVICH, I. L.

USSR/Chemistry - Microanalysis Nov 50

"Gravimetrical Microchemical Determination by the Method of Triple Weighing," I. L. Teodorovich, Tashkent Med Inst imeni V. M. Molotov

"Zavod Lab" No 11, pp 1394, 1395

Describes detn of lead in form of chromate. Conducted anal in 2.5-ml porcelain crucibles with application of centrifuging and capillary siphons.

180T4

CA

1

Self-sucking capillary for semimicro analysis. I. L. Teodorovich (Tashkent Med. Inst., U.S.S.R.). *Zavodskaya Lab.* 16, 1132(1950).—A semimicro-size siphon is described which is hung on the lip of the beaker, with the downward outlet tube directed to a collector of the filtrate. The inlet consists of an enlarged downward-pointing capillary tube closed by means of a filter paper disk.

G. M. Kosolapoff

CA

7

Gravimetric microchemical determination by the "three weighings" method. I. L. Teodorovich (V. M. Molotov Med. Inst., Tashkent). *Zavodskaya Lab.* 16, 1394–5 (1950). The crucible containing the ppt. and the soln. is centrifuged and the clear soln. is removed with a capillary suction tube, the ppt. is washed conventionally and is centrifuged as many times as needed. The application in detg. Pb as chromate is described. G. M. Kosolapoff

TEODOROVICH, I.L.

"The Intermediate Jump in Potential during the Potentiometric Titration of Aluminum Salt Solution of Sodium Fluoride."

Central Asia State ,Tashkent, Zhur Anal Khim, Vol. 7, No.3, pp175-179, 1952.

Explained hat the configuration of the titration curve of the Al salt soln titrated with a NaF soln with a ferri-ferroelectrode, is detd by the drop in potential on a Pt electrode owing to an increase in the pH and a decrease in Fe^{3+}/Fe^{2+} in soln. Presented a theoretical explanation for the titration curve on the basis of an increase in the srability of compds in the following series: $AlCl_3 \rightarrow AlCl_2 \rightarrow AlFe_2Cl \rightarrow AlF_3$.

Demonstrated that the internediate drop in the potential is explained by the formation of AlF_2Cl (of AlF_2^+ ions), which produces a decrease in the acidity of the soln. This acidity decrease then brings about a drop in the potential of the Pt electrode. Found that the position of the intermediate drop in potential in the titration of a Al salt by a NaF soln. Also, in rapid analysis, it is possible to estimate the amount of Al by titrating only to the intermediate drop in potential.

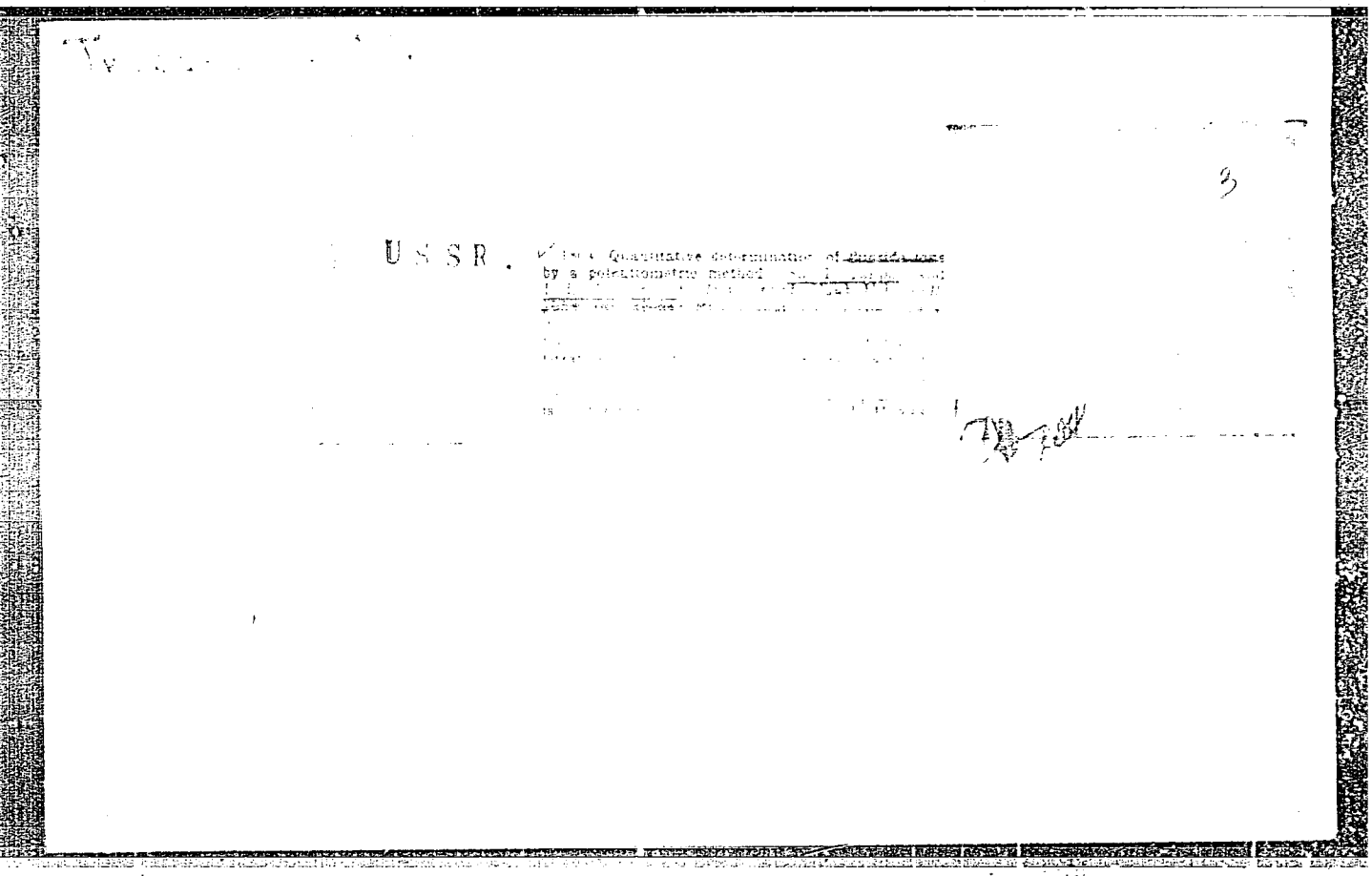
261T22

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755310010-8"

TEODOROVICH, I. L.

"A Nondiscoloring Colorimetric Scale for the Determination of Small Quantities of Arsenic," Zavodskaya Laboratoriya, Vol. 18, No. 3, p 374, 1952.

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755310010-8"



USSR.

TEODOROVICH, I. L.

TEODORVICH, I. L.

Analytical Abst.
Vol. 1 No. 1
Jan. 1954
General Analytical Chemistry

(1) Chem

13. Determination of indicator error by the method of I. M. Korenman. I. L. Teodorovich (*J. Anal. Chem., U.S.S.R.*, 1953, 8, 161). A slight modification of Korenman's formula (*Anal. Abstr.* 1, 1937, 196) is put forward. G. S. Smith

V.M. Molotov Med. Inst., Tashkent

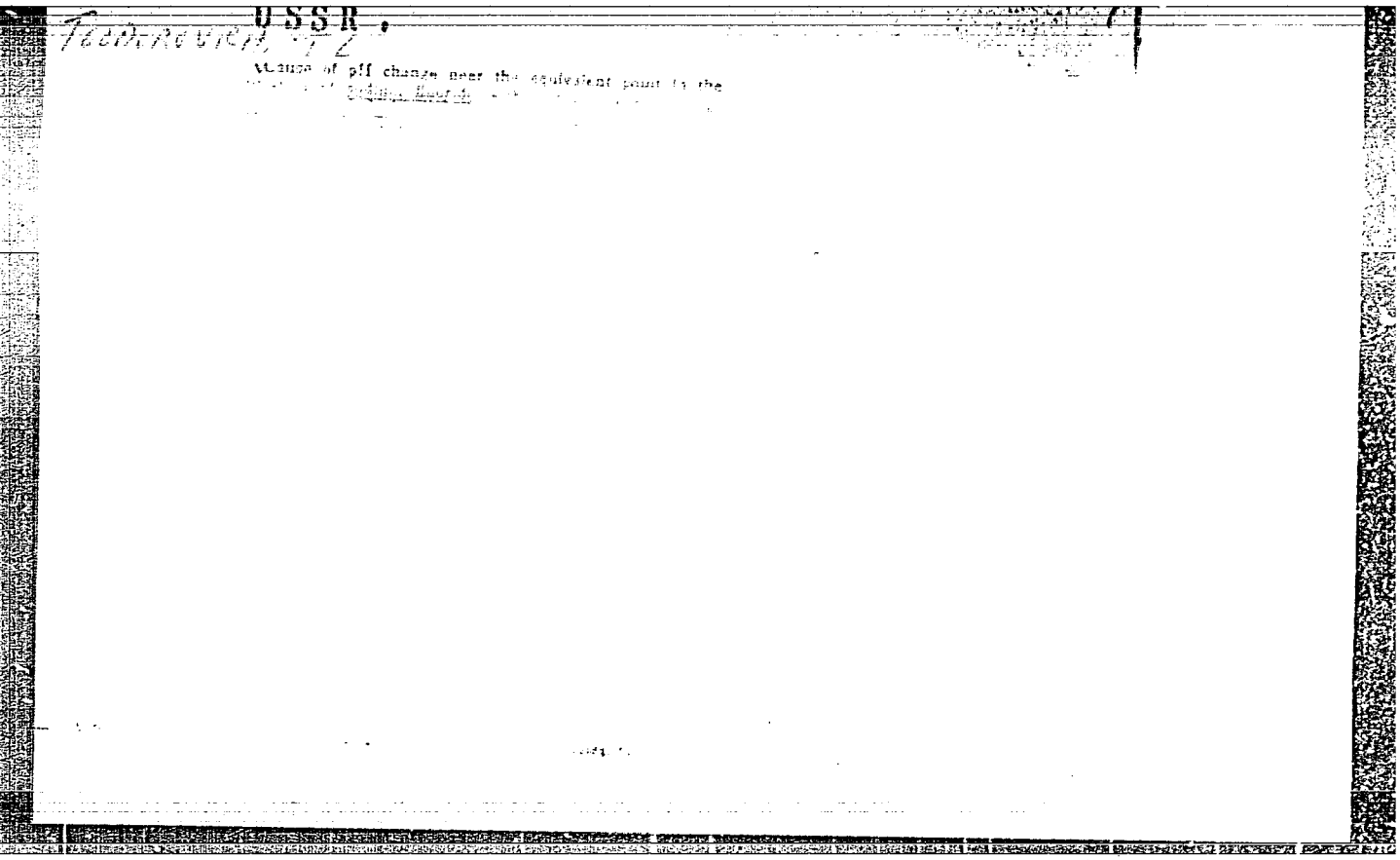
(CA 47 no.20:10400 '53)

TEODOROVICH, I.L.

(3) 4

Potentiometric titration with a ferri-ferrocyanide electrode. Determination of copper. I. L. Teodorovich and I. K. Lepshina (Central Asia State Univ., Tashkent). *Zhur. Anal. Khim.* 8, 310-5(1953).—In this method, Cu was complexed with NH_4OH and then titrated with $K_4Fe(CN)_6$. To a $CuSO_4$ soln., add NH_4OH until turbidity disappears. Add a few drops of approx. 0.5*M* $K_4Fe(CN)_6$ and titrate potentiometrically with a standard $K_4Fe(CN)_6$ soln. The compn. of the ppt. did not correspond to $Cu_2Fe(CN)_6$. The $CuSO_4$:$K_4Fe(CN)_6$ ratio was 2.013 2.147. In detg. Cu in Paris green quinquevalent As did not interfere, trivalent As interfered and had to be oxidized to the quinquevalent state with H_2O_2. M. Hoseh

4



TEODOROVICH I. L.

USSR/Chemistry - Co-deposition

Card 1/1 : Pub. 145 - 6/10

Authors : Teodorovich, I. L., and Rakhimova, B. V.

Title : Study of the possibility of preventing co-deposition of Cu with ferric hydroxide

Periodical : Zhur. anal. khim. 9/5, 293-298, Sep-Oct 1954

Abstract : The effect of certain substances on the magnitude of Cu co-deposition during deposition of aqueous ferric oxide with ammonium hydroxide in Fe^{3+} and Cu^{2+} solutions, was investigated. The main factor assisting in the prevention of Cu co-deposition is explained. The ability of preventing Cu co-deposition increases by increasing the stability of the homologous Cu complexes. The effect of glycol and ethylenediamine additions on the Cu co-deposition, is analyzed. The method of introducing complex forming-agents may serve as a proper means of preventing adsorption and isomorphic co-deposition. Twelve USSR references (1934-1952). Tables; graph.

Institution : Central Asiatic State University, Tashkent

Submitted : June 5, 1953

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755310010-8"

TEODOROVICH, I.L.; GUSEYNOVA, R.Kh.

Conditions for obtaining precipitates of ferrocyanides Fe^{3}, Cu^{3}, and Sn^{4} of a constant composition. Soob.o nauch.rab.chl.VKHO no.1:22-25 '55. (MIRA 10:10)

(Ferrocyanides)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755310010-8"

Teodorovich, I. L.

ABRAMOV, M.K.; TEODOROVICH, I.L.

Amperometric titration of ammonium sulfate in medicinal sera [with summary in English]. Zhur.anal.khim. 12 no.4:566 Jl-Ag '57. (MIRA 10:10)

1.Tashkentskiy farmatsevticheskiy institut i Tashkentskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.
(Ammomium sulfate) (Electrochemical)

AUTHORS: Teodorovich, I.L., Abramov, M.K. 32-24-4-9/67

TITLE: The Application of Sodium Ferrocyanide for the Amperometric Manganese Titration (Primeneniye ferrotsianida natriya dlya amperometricheskogo titrovaniya margantsa)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 4, pp. 406-407 (USSR)

ABSTRACT: The possibility of titrating manganese II in the presence of a complex former was investigated. Compared with potassium, sodium ferrocyanide is recommended as a more favorable titration liquid, because sodium ions do not precipitate as much as potassium ions. Glycocoll was found to be the most effective former of complex. As may be seen from the course taken by the investigation, titration was carried out with an anodically polarized revolving platinum-microelectrode. A 0.01 molar sodium ferrocyanide solution was used for titration. Titration errors in case of 0.213 mg manganese II amounted to 3.3%, and in the case of 1.066 to 4.616 mg to 0.7%. In the case of a content of only 0.03 to 0.05 mg manganese II the titration solution had to be diluted. As may be seen from a table, the presence of barium, calcium, magnesium,

Card 1/2

The Application of Sodium Ferrocyanide for the Amperometric Manganese Titration

and strontium does not disturb determination. There are 2 tables and 1 Soviet reference.

ASSOCIATION: Tashkentskiy farmatsevticheskiy institut i Institut vaktsin i syvorotok (Tashkent Pharmaceutical Institute and Institute for Inoculating Materials and Sera)

1. Manganese--Volumetric analysis 2. Sodium ferrocyanides --Chemical reactions 3. Magnesium--Chemical effects 4. Calcium --Chemical effects 5. Barium--Chemical effects 6. Electrodes--Performance

TEODOROVICH, I.L.; ABRAMOV, M.K.

Amperometric titration of small quantities of Fe (III) with monosubstituted sodium phosphate. Dokl.AN Uz.SSR no.1:29-31 '59. (MIRA 12:4)

1. Institut khimii AN UzSSR. Predstavleno chlenom-korrespondentom AN UzSSR Kh.U.Usmanovym.
(Iron-Analysis) (Sodium phosphate)

TEODOROVICH, I.L.

Amperometric titration with a platinum microelectrode without mercury contact. Uch.zap. SAIGIMSa no.10:149-150 '63. (MIRA 17:2)

ABRAMOV, M.K.; TEODOROVICH, I.L.

Quantitative determination of ammonium sulfate in therapeutic sera by using the amperometric method. Apt. delo 13 no.1:66-69 Ja-F '64. (MIRA 17:4)

1. Tashkentskiy farmatsevticheskiy institut.

TEODOROVICH, I.L.

Amperometric titration of potassium in sylvinites. Zav. lab. 30 no.9:1062-1064 '64. (MIRA 18:3)

1. Institut khimii AN UzSSR.

TODOROVICH, I.I.; AVTSOV, I.; GUTNIKOVA, R.I.; VOLYANSKAYA, Ye.

Possibility of preventing the coprecipitation of cobalt (II) and iron (III). Zhur. VKHO 10 no.2:238-239 '65.
(MIRA 18:6)

1. Institut khimii AN Uzbekskoy SSR.

SEVAST'YANOVA, Ye.K., mladshiy nauchnyy sotrudnik; RACHINSKIY, A.A., kandidat sel'skokhozyaystvennykh nauk; GAVRILENKO, D.M., mladshiy nauchnyy sotrudnik; TOGOYEV, I.N., otvetstvennyy redaktor; MALENIN, V.N., redaktor; TEODOROVICH, L.D., redaktor; PAZDZERSKIY, A.N., redaktor; DONSKOY, P.V., redaktor; LYUBECHANSKAYA, N.I., redaktor izdatel'stva; GOR'KOVAYA, Z.P., tekhnicheskiy redaktor

[Prospective plan for the development of a collective cotton farm; the Stalin collective farm of the Buvaidy District, Fergana Province] Perspektivnyi plan razvitiia khlopkoseiushchego kolkhoza; kolkhoz imeni Stalina Buvaidinskogo raiona Fergansko oblasti. Tashkent, 1956. 125 p. (MLRA 9:12)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut ekonomiki.
2. Institut ekonomiki Akademii nauk Uzbekskoy SSR (for Sevast'yanova)
3. Institut sooruzheniy Akademii nauk Uzbekskoy SSR (for Rachinskiy)
4. Institut sel'skogo khozyaystva Akademii nauk Uzbekskoy SSR (for Gavrilenko)

(Uzbekistan--Cotton growing)

TEODOROVICH, L. M.

"The Agrotechnical Bases and the Regionalization of Prospective Plans for Cotton-Grass Rotations in the Kolkhozes of the Ferganskaya Valley." Cand Agr Sci, Inst of Agriculture, Acad Sci Uzbek SSR, Tashkent, 1953. (RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

So: Sum. No. 481, 5 May 55

USSR / Cultivated Plants. Technical, Oleaceous, Sugar Bearing Plants. M-6

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58661

Author : Teodorovich, L. M.; Pal'min, B. A.; Babushkin, L. N.
Inst : UZ SSR Acad. Sci.
Title : Division Into Regions of the Cotton Cultivation Zone of Uzbekistan

Orig Pub : Izv. AN UZ SSR, 1956, No 12, 3-13

Abstract : The characteristics of individual regions in the zone of irrigated cotton cultivation are given in this paper. They are based on indexes pertaining to the length of the vegetation period and the sum of effective temperatures. They are also in accordance with data on the composition of the soil in Uzbekistan and its degree of salinity. Indications as to the relative importance of individual types of soil and areas occupied by each

Card 1/3

USSR / Cultivated Plants. Technical, Oleaceous, Sugar Bearing Plants. M-6

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58661

region, and variations in economic conditions among the individual sections of the zone of irrigated cotton cultivation are also given in this paper. The zone of production specialization in the area set aside for irrigated cotton cultivation is divided into three subzones on the basis of the above indexes: (North western, central and southern) and six districts (Lower-Amu-Dar'ya, Zeravshan, Tashkent, Fergan, Kashka-Dar'ya, Surkhan-Dar'ya). The districts are in turn divided into subdistricts and administrative rayons. A brief description of sub-zones and rayons from the point of view of their climatic characteristics, soil conditions, agricultural engineering, type of planted varieties, and similar economic conditions, is given. In conclusion, the conditions, under which agromeliorative

Card 2/3

USSR / Cultivated Plants. Technical, Oleaceous, Sugar Bearing Plants. M-6

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58661

measures directed towards further increases in yield per 100 ha of land in every sub-district must be worked out at a minimal expense of labor and money, are enumerated. -- N. N. Konstantinov

Card 3/3

TEODOROVICH, L.M.

USSR/Cultivated Plants - Technical, Oil and Sugar Crops. M-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10872

Author : Teodorovich, L.M.

Inst : Academy of Sciences Uzbek SSR

Title : Cotton Crop Characteristics for Rayons of the Golodnaya Steppe

Orig Pub : Izv. AN UzSSR, ser. biol., 1957, No 1, 29-40

Abstract : This a review which encompasses agroclimatic indices of the Golodnaya Steppe (by rayons), soil types and degrees of salination, a characterization of recommended crop rotation schemes, a comparison of the effectiveness of various agricultural techniques, and characteristics of cotton growth and development on saline soils. On the basis of an analysis of natural and economic conditions and the characteristics of the cotton crop, the

Card 1/2

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Abs Jour : Ref Zhur - Biol., No 3, 1958, 10872

conclusion is reached that cotton productivity can still be greatly increased on the newly opened up lands of the Golodnaya Steppe.

KUCHER, R.V.; KOVBUZ, M.A.; TEODOROVICH, M.Ye.

Chromatographic separation of meta-diisopropylbenzene hydroperoxides. Zav.lab. 27 no.11:1331-1333 '61. (MIRA 14:10)

1. L'vovskiy gosudarstvennyy universitet imeni I.Franko.
(Benzene) (Hydroperoxide)
(Chromatographic analysis)

S/080/61/034/003/009/017
A057/A129

AUTHORS: Kucher, R. V., Kovbuz, M. A., Teodorovich, M. Ye.

TITLE: On the purification of isopropylbenzene by adsorption

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 3, 1961, 598 - 603

TEXT: A method for the purification of isopropylbenzene by means of adsorption was developed to improve the oxidizability of the latter in liquid phase autocatalytic oxidation processes. These processes are very sensitive, especially at the beginning of the reaction, to the presence of impurities in the hydrocarbon. Usually an acid-alkali purification is applied, eventually with subsequent boiling over sodium metal, as recommended by D. D. Grant and C. F. Tipper [Ref. 4: J. Chem. Soc., 640 (1955)]. But also several adsorption methods were suggested in order to remove impurities from hydrocarbons, as isopropylbenzene or others by O. A. Kolmakov et al. [Ref. 9: Tr. po khim. i khim. tekhn., Gor'kiy, 1, 36 (1958)] or N. D. Kazakova and V. G. Gutsalyuk [Ref. 10: Izv. AN KazSSR, ser. khim., 1, 99 (1958)] and also in the Canadian patent 509870. Thus in the present work the adsorption was investigated of some substances dissolved in isopropylbenzene on ACK (ASK), ACM(ASM) silica gel, aluminum oxide "for chromatography" and two types of carbon

On the purification of isopropylbenzene by adsorption

with values obtained on pure ASM silica gel, consecutive adsorption of granulated carbon black on ASK and ASM silica gel, and the mixture 2 : 1. It can be seen from Fig. 3 that best results were obtained with ASK-carbon black mixture. Hence the latter is the optimum adsorbant for the purification of technical grade isopropylbenzene. Regeneration of the silica gel is carried out by washing with boiling water or steam and subsequent calcination. Kinetic curves (Fig. 4) on accumulation of hydrogen peroxide in liquid-phase homogeneous oxidation of isopropylbenzene obtained after purification by the acid-alkali method show that a lower reaction capacity is obtained in comparison to the product purified by adsorption methods. 5 kg of ASK silica gel and 2.5 kg of carbon black are necessary for the purification of 100 l of isopropylbenzene. There are 5 figures, 1 table and 12 references: 11 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: D. D. Grant, C. F. Tipper, J. Chem. Soc., 640 (1955).

ASSOCIATION: Kafedra fizicheskoy i kolloidnoy khimii L'vovskogo gosudarstvennogo universiteta imeni I. Franko (Department of Physical and Colloid Chemistry of the L'vov State University imeni I. Franko)

SUBMITTED: May 18, 196

TEODOROVICH, N.

Elektrifikatsiia zheleznodorozhnogo transporta i ee tekhniko-ekonomicheskaia effektivnost'. / Railroad electrification and its technical-economic effectiveness /. (Sots. transport, 1932, no. 8-9, p 75-81).

DLC: HE7.S6

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

TEODOROVICH, N. A. (Engr.)

Plumbing

Stakhanovite methods for the installation of sanitary equipment in residential construction. Biul. stroi. tekh. 9.no.14. 1952.

Monthly List of Russian Accessions, Library of Congress November 1952. UNCLASSIFIED

TEODOROVICH, O. K.

9(2) PHASE I BOOK EXPLOITATION SOV/1355

Soveshchaniye po elektricheskim kontaktam. Moscow. 1956.

Elektricheskiye kontakty; trudy soveshchaniya (Electrical Contacts: Transactions of the Conference) Moscow, Gosenergoizdat, 1958. 303 p. 4,150 copies printed.

Editorial board: B.S. Sotskov (Resp. Ed.), V.V. Usov, R.S. Kuznetsov, I.Ye. Dekabrun, and Z.S. Kirillova; Ed.: I.Ye. Dekabrun; Tech. Ed.: K.P. Voronin.

PURPOSE: This collection of articles is intended for engineers and technicians designing, developing and operating electrical apparatus and is concerned with electric contact materials. It may also be useful in scientific research institutes and laboratories.

COVERAGE: This book comprises reports delivered at the Electric Contacts Conference held in Moscow in November, 1956. These papers cover physical processes occurring during connecting or disconnecting, methods of designing and testing electric contacts, production and characteristics of contact materials. During this conference of the Institut avtomatiki telemekhaniki AN SSSR (Institute of Automation and Telemechanics, Academy of Sciences, USSR) participants approved periodic conferences of physicists, metallurgists, chemists and apparatus design specialists to discuss problems of electric contacts, which are the components of electric apparatus primarily influencing the reliability of electric systems, especially d-c control systems. Their physical, thermal, mechanical and chemical processes have still not been well analyzed. References are given at the end of most of the reports.

II. DESIGN : APPLICATION AND TESTING METHODS

Feyler, G.O. (Zavod "Dinamo," Moscow - Moscow "Dinamo" Plant) Wear Resistance of Contacts in D-c Contactors and Controllers 138

The author describes the method of testing wear resistance of contacts at the "Dinamo" Plant in Moscow and proposes that all other plants adopt this method as a standard one to enable the comparison of test results.

Gordon, A.V. Methods of Testing the Resistance to Wear of Electric Contacts in Aircraft D-c Contactors 148

The author reports the results of work he carried out along with engineers K.V. Isayev, M.A. Prusov, V.P. Simonova. He describes the method applied for testing aircraft D-c contacts. This method permits approximating testing conditions with real operating conditions. He suggests applying this method for testing contactors of general industrial use.

Fikh, V.I., and M.A. Gurevich. (Zavod "ATE-1"-Moscow "ATE-I" Plant) Contacts of Vibrator Voltage Regulators 156

The authors summarize the results of investigations they carried out in the Electric Machine Laboratory of the "ATE-I" Plant along with Engineers Ye.K. Shvedov, V.I. Khrunin, Ya.M. Levit, L.B. Bayer, R.V. Gorelov, O.I. Bushkova on operating conditions of contacts in vibrator voltage regulators of automobile generators, on the design of contact fittings and on various pairs of contact metals.

III. PRODUCTION AND CHARACTERISTICS OF CONTACT MATERIALS 171

Al'tman, A.B., I.P. Melashenko, and E.S. Bystrova (Nauchno-issledovatel'skiy institut elektrotekhnicheskoy promyshlennosti - Scientific-Research Institute for the Electrical Industry) Modern Sintered-Metal Electric Contacts. 171

Sintered metals are presently the most suitable materials for arcing tips of high-duty circuit-breakers. The authors explain the technical requirements, describe the structure of the compositions, methods of production, characteristics and applications.

Frantsevich, I.N., and O.K. Teodorovich. (Institut Metallokeramiki i Spetsial'nykh Splavov AN USSR - Institute for Sintered Metals and Special Alloys, UkrSSR Academy of Sciences) Production Methods of Sintered-Metal Electric Contacts 186

The authors describe the results of their investigation of the comparison of various methods of producing sintered metals.

Usov, V.V. and Murav'yeva, Ya.M. (Nauchno-issledovatel'skiy institut elektrotekhnicheskoy promyshlennosti - Scientific-Research Institute for the Electrical Industry) Thermochemical Method for Production of Contact Compositions. 199

Ionization of alloys at higher temperatures results in structure similar to that obtained by the sintered metal power method. The authors explain this thermochemical method and its advantages.

Al'tman, A.B., and E.D. Bystrova. (Scientific-research Institute for the Electrical Industry) Internal Structure of Wear-resistant Electric Contacts 214

The authors discuss their investigation of the influence of internal structure of heterogeneous materials on wear resistance. They paid special attention to the alloys Ag-Cu, Ag-Si-Mg, and Ag-Al.

Card 8/11

SOV/129-58-9-4/16

AUTHORS: Frantsevich, I. N. and Teodorovich, O. K.

TITLE: On Certain Properties of Iron-Copper Alloys Obtained by the Method of Impregnation (O nekotorykh svoystvakh zhelezomednykh splavov, poluchayemykh metodom propitki)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 9, pp 20-23 + 1 plate (USSR)

ABSTRACT: The possibility of obtaining cermets from two ageing phases is a very rare and favourable factor for producing materials with a great variety of properties on the basis of the binary system. The results of studying the manufacturing technology and the physico-mechanical properties of iron-copper compositions produced by sintering and impregnation have been described by a number of Western authors (Refs 2 - 10). The aim of the work described in this paper was to ensure by means of strengthening of the inter-phase boundaries and selection of an optimum ageing regime the necessary ductility combined with a high strength (90 kg/mm^2) for an iron-copper alloy. According to Elliott (Ref 9) alloys with the highest strength contained about 8% copper. After homogenisation such alloys should be single-phase alloys in the hardened state. The authors assume that even in

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the aged state such a composition may ensure the desired amount of ductility provided that in addition to an iron base phase it contains a more ductile ageing copper base phase. To avoid etching of the boundaries of the impregnated iron phase and loosening boundaries due to the accumulation of vacancies, the authors manufactured the alloy from solutions of copper in iron and iron in copper which were mutually in equilibrium at the temperature of impregnation or sintering. In this way the optimum conditions were created for ageing of the iron base phase and also of the copper base phase. The iron powder contained 98.3% Fe, 0.3% Mn, 0.1% Si, 0.072% C, 0.01% S and an undissolved residue of 0.17% HCl. It was produced by reduction of scale and was subsequently enriched with copper (to contain 8% Cu) in a solution of copper chloride. From this powder specimens were pressed with the desired porosity and subjected to homogenisation annealing in hydrogen at 1050°C for twenty hours. The impregnating copper alloy, containing 5% Fe, was smelted in an atmosphere of hydrogen using copper which contained

0.05% admixtures and iron powder. The blanks of the specimens were impregnated in a hydrogen atmosphere in annealed alumina at 1120°C for thirty minutes. For investigation (density, micro-structure) specimens without pores were used. The process of dispersion hardening was investigated as follows: individual batches of fifteen specimens were heated to 1000°C in a hydrogen atmosphere and after a holding time of eight hours they were quenched in water. From these, cuts were made for micro-structural and micro-durometric investigations. To avoid the distorting influence of work hardening, the cuts were produced by means of electrolytic polishing. For studying the influence of the copper component on the strength and hardness, the blanks to be impregnated were pressed with porosities of 15, 20, 25, 30, 35 and 50%. After homogenisation annealing, impregnation and machining, the specimens were quenched from 1000°C in water and subjected to ageing at 430°C for three hours. The hardness values of the specimens prior to the mechanical tests are graphed in Fig.2. It can be seen that with increasing copper content the hardness and the

On Certain Properties of Iron-Copper Alloys Obtained by the Method of Impregnation

strength of the pseudo-alloy drop considerably, whilst at the same time the plasticity increases. The graphs, Fig.3, show the dependence of the micro-hardness of the individual phases on the temperature and the ageing time. It can be seen that considerable differences exist in the progress of the ageing processes in the iron-copper and copper-iron phase components; the hardening curves of the first mentioned phase are typical ones of artificially ageing alloys. Micro-structure photographs of specimens with various copper contents are reproduced in Fig. 4 (plate). Comparison of the data of the metallographic analysis with the mechanical characteristics of the alloys leads to the conclusion that in the case of a copper content of 50% the mechanical characteristics are determined fundamentally by the properties of the copper base phase. For a copper content of 25%, the iron base phase predominates; obviously, the strength characteristics of such an alloy are typical of a single-phase solution of copper and iron. In the case of high temperature annealing, the

On Certain Properties of Iron-Copper Alloys Obtained by the Method of Impregnation

tendency was observed of the copper phase to expand along the grain boundaries of the iron solution; this process is characterised by a drop in strength and an increase in the ductility (Fig.5 and Fig.6 (plate). Thus, in the given case the physical-mechanical properties are determined not only by the state of the individual phases but also by their mutual location.
There are 6 figures and 10 references, 9 of which are English, 1 German.

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov AN USSR (Metal Ceramics and Special Alloys Institute, Ac.Sc. Ukraine)

1. Copper-iron alloys--Properties 2. Copper-iron alloys--Phase studies 3. Copper-iron alloys--Analysis

FRANTSEVICH, I.N.; TEODOROVICH, O.K.

Cermet iron-copper compositions used for manufacturing machine parts [with summary in English]. Zhur.-fiz.zhur. no.12:32-37 '58. (MIRA 11:12)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR, g. Kiyev.

(Cermets)

AUTHORS: Teodorovich, O.K., Kachkovskaya, E.T. 32-1-24/55

TITLE: Electric Polishing and Etching of Metallographic Ground Surfaces of Metalloceramic Materials With an Iron- and Copper Basis (Elektropolirovka i elektrotravleniye metallograficheskikh shlifov iz metallokeramicheskikh materialov na osnove zheleza i medi).

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 1, pp. 57-60 (USSR)

ABSTRACT: The apparatus recommended for this purpose in this paper (fig. 1) consists of a holder for the sample of stainless steel with a brass socket, which represents the current feed, a ring for the adjustment of the anode (ground section) and the cathode, also of stainless steel, with a brass socket, and a connection for the current, as well as of other parts by means of which the anode and cathode are held against each other. In order to avoid polarization of the cathode its surface is ten times as large as that of the anode. For electric polishing an electrolyte consisting of 88% orthophosphoric acid and 12% chrome anhydride is used. The surface to be polished is first treated with emery paper and cleaned with a piece of cloth drenched in an aluminum suspension. Polishing itself is

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Electric Polishing and Etching of Metallographic Ground Surfaces of Metalloceramic Materials With an Iron- and Copper Basis

32-1-21/55

carried out at a temperature of +50-70° C and a current density of 1.25 A/cm^2. Polishing takes 2 minutes; the distance between anode and cathode is adjusted to 3-5 mm. If, after electric polishing in this way, the current density is reduced to 0.05 A/cm^2, electric etching takes place and the granular boundaries on the iron basis become visible. As the relief, after electric polishing and etching, is connected with different velocities of the solution of phases, the method of two-stage polishing is used in this case. The device described is used for porous as well as for nonporous compounds with iron- and copper bases. The paper contains illustrations of the microstructures of such materials after electric polishing and/or electric etching of the surfaces. There are 4 figures.

ASSOCIATION: Institute for Metalloceramics and Special Alloys AN Ukrainian SSR (Institut metallokeramiki i spezsplavov Akademii nauk USSR).

AVAILABLE: Library of Congress

Card 2/2 1. Electropolishing-Methods

TEODOROVICH, O. K., Cand Tech Sci -- (diss) "Ferro-copper metallo-ceramic compositions." Kiev, 1960. 19 pp with illustrations; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Kiev Order of Lenin Polytechnic Inst); 150 copies; price not given; (KL, 27-60, 155)

28225
S/194/61/000/005/069/078
D201/D303

9.2140 (1001, 1150, 1161)

AUTHORS: Frantsevich, I.N., Teodorovich, O.K., and Gordiyenko, G.N.

TITLE: The use of palladium as a contact material

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 5, 1961, 57, abstract 5 I386 (V sb. Elektr. kontakty, M.-L., Gosenergoizdat, 1960, 356-364)

TEXT: Alloys, on the basis of silver and palladium with and without small additions of nickel, have been obtained by compressing semi-finished material from highly dispersive powder and its subsequent annealing at 850°C. The subsequent multiple processing of the half-product (final compression, drawing into tape or bars, drawing into wire with intermittent annealing at 850°C) makes it possible to obtain non-porous alloys with anisotropic properties. Certain properties of alloys are given in the table. The alloy APdNS-70 shows considerable advantages over other alloys. From the

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The use of palladium...

point of view of transient resistance it is as good as gold and has a life time and stability exceeding those of all other types. Experimental comparison of contacts made of OK-15 and of ANS-70 has shown that in experimental conditions contacts from the silver-nickel alloy (ANS-70) have the better properties. 2 references.

Legend to table: 1) Trade mark of the alloy; 2) APdS-NO; 3) APdNS-70; 4) ANS-70; 5) Chemical composition; 6) S.g. g/cm^3; 7) Vickers hardness; 8) Specific electrical conductivity, % of that of copper.

Марка сплава (1)	Химический состав, (5)			(6) Уд. вес, г/см³	Твердость по Виккерсу (7)	Уд. электропроводность, % к меди (8)
	Ag	Pd	Ni			
АПдС-НО (2)	65–70	35–30	–	11–12	20–25	10–11
АПдНС-70 (3)	65–70	30–25	5–6	10–11	30–35	12–16
АНС-70 (4)	65–70	–	35–30	–	–	–

[Abstracter's note: Complete translation]

Card 2/2

3G429

S/137/62/000/003/064/191
A006/A101

15.2400

AUTHORS: Teodorovich, O. K., Radomysel'skiy, I. D.

TITLE: Investigating the properties of cermet iron-brass compositions

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 41, abstract 3G284 ("Poroshk. metallurgiya", 1961, no. 4, 63, English summary)

TEXT: The authors studied peculiarities in the technology of obtaining iron-brass compositions, manufactured by the method of soaking a Fe-skeleton with brass. The optimum brass content was 20%. The author investigated the effect of alloying Fe-powder with copper, of graphite admixtures, and heat treatment. In the best compositions σ_b was after quenching 50 - 60 kg/cm^2, δ was 3 - 8%; after tempering σ_b was 65 - 90 kg/mm^2, δ was 2 - 8%. Soaking was performed at 1,000°C.

R. Andriyevskiy

[Abstracter's note: Complete translation]

Card 1/1

35790
S/137/62/000/004/047/201
A006/A101

1.1600

AUTHORS: Teodorovich, O.K.; Gordiyenko, G.N.

TITLE: Silver and rhenium contacts

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 44, abstract 4G292 ("Poroshk. metallurgiya", 1961, no. 5, 60 - 64, English summary)

TEXT: Information is given on a technology developed for manufacturing contact materials: Ag + 50% Re and Ag + 70% Re. Re and Ag powders are dissolved in HNO_3; the solutions are mixed and filtered; the residue is washed, dried and reduced at 300°C. the reduced powder mixture is pressed at a pressure of 3 t/cm^2, sintered at 900°C and additionally pressed at a pressure as high as 5 t/cm^2. Changes in the contact resistance of the sintered specimens as functions of the current intensity and contact tension were measured; measurements were also taken of volt-ampere characteristics, erosion resistance, etc. The properties of Ag-Re contacts are of a higher quality than those of Ag and Ag-W contacts.

R. Andriyevskiy

[Abstracter's note: Complete translation]

Card 1/1 Inst. Metal Ceramics & Special Alloys AS Ukr SSR

S/137/62/000/007/016/072
A052/A101

AUTHORS: Teodorovich, O. K., Frantsevich, I. N.

TITLE: Role of diffusion processes in the formation of powdered-metal iron-copper alloy

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1962, 45, abstract 70312 ("Poroshk. metallurgiya", no. 6, 1961, 35 - 43; English summary)

TEXT: A microscopic study of heterodiffusion in the system Cu-Fe and (Fe-Cu) - (Cu-Fe) has shown that the structure of interphase boundaries is imperfect as a result of heterodiffusion processes when pure Fe and Cu are used. The results of the X-ray spectrum analysis of microvolumes have confirmed the uniformity of component distribution when intersaturated solid solutions on Cu and Fe base are used. It is shown that Fe-Cu compositions made of intersaturated components have improved ductility and dynamic strength characteristics. There are 8 references.

R. Andriyevskiy

[Abstracter's note: Complete translation]

Card 1/1

TEODOROVICH, O.K., kand.tekhn.nauk; LEVCHENKO, G.V., inzh.

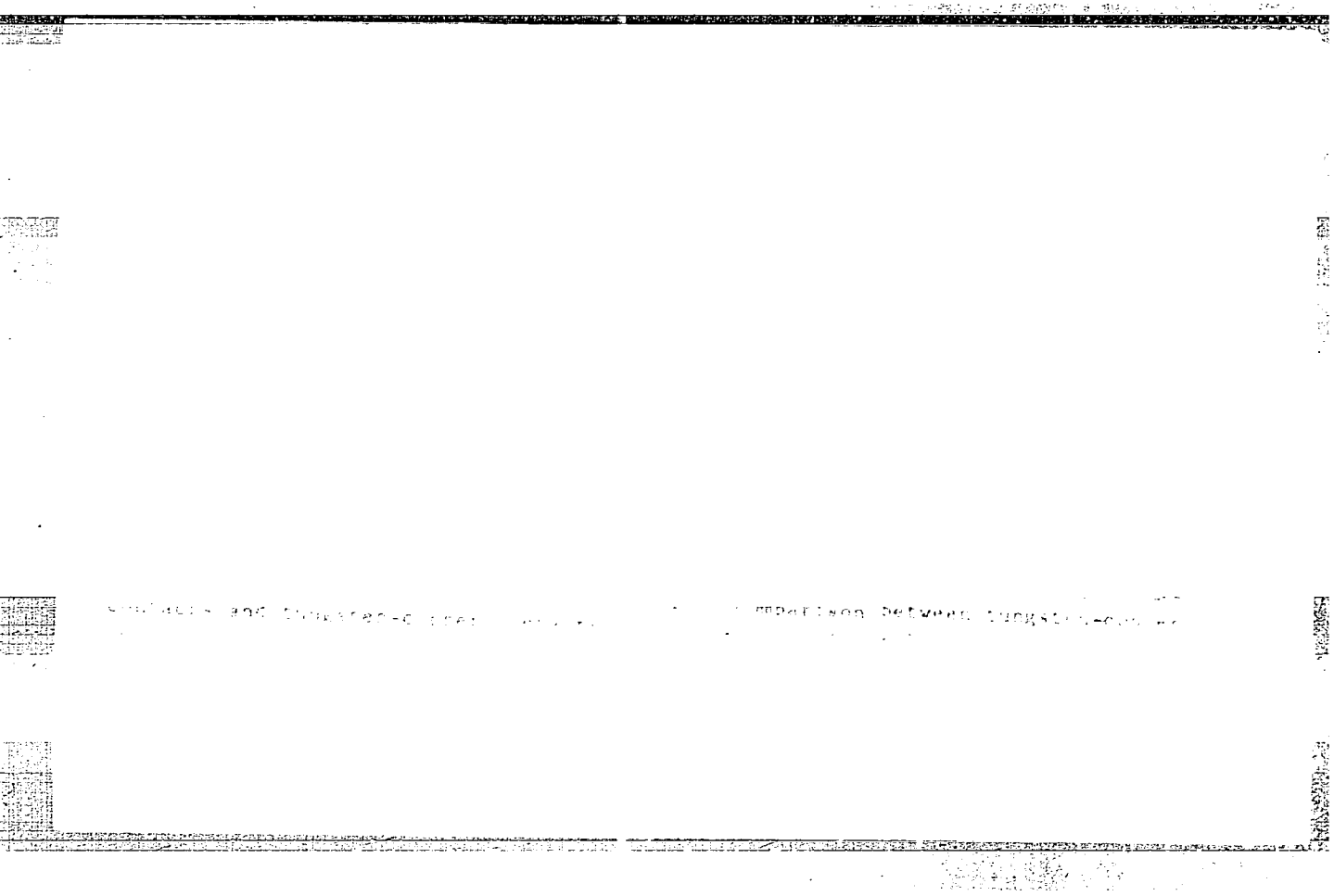
Performance of contactors made from metalloceramic preparations with a tungsten base in large electric cutouts. Elektrichestvo no.2:64-68 F '62. (MIRA 15:2)

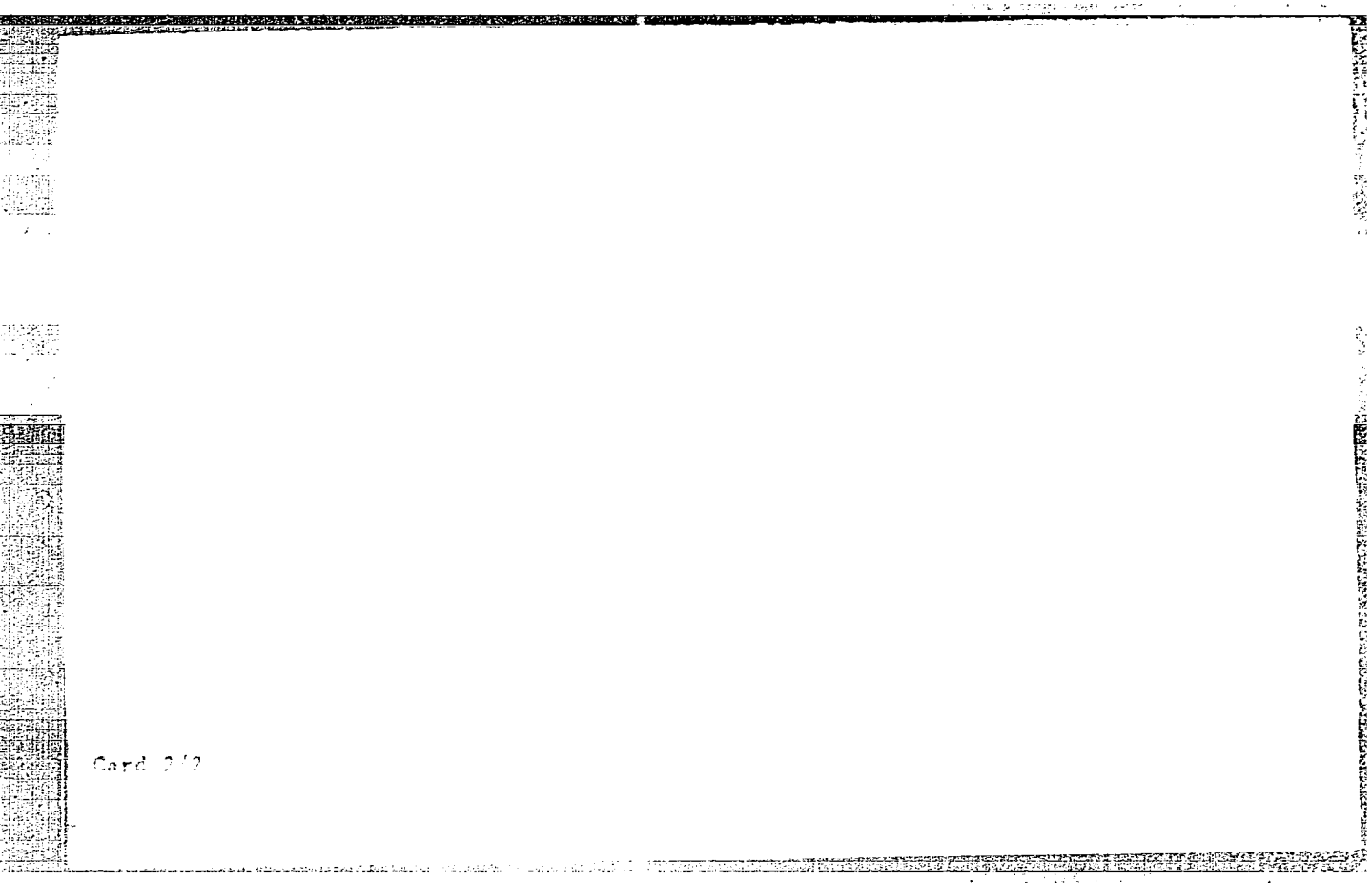
1. Institut metallokeramiki i spetssplava AN USSR, Kiyev.
(Electric cutouts)

TEODOROVICH, O. K.; BOYKO, Ye. B.; FRANTSEVICH, I. N.

"Sintered parts of construction made from iron and copper."

Report presented at the Conference on Powder Metallurgy, Krakow, Poland, 19-21 Sept 63.





APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755310010-8"

LEVCHENKO, G.V., inzh.; [illegible] V, [illegible], kand. fiziko-matem. nauk; [illegible]SKIY, V.I., kand. tekhn. nauk; [illegible], [illegible], kand. tekhn. nauk

Choice of metalloceramic material for contacts operating in a vacuum. Elektrotekhnika 35 no.5:52-53 My '64. (MIRA [illegible])

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755310010-8"

TEODOROVICH, O.K.; LEVCHENKO, G.V.; VLASENKO, G.L.

Effect of silicon on the formation and properties of tungsten-nickel-copper contacts. Poroshk. met. 5 no.5:58-62 My '65.
(MIRA 18.5)

1. Institut problem materialovedeniya AN UkrSSR.

VLASENKO, O.I.; LEVCHENKO, G.V.; MAREK, B.A.; TEODOROVICH, O.K.

Defects of ceramic metal tungsten-nickel-copper contactors. Poroshk.met. 5 no.6:94-104 Je '65. (MIRA 18:8)

1. Institut problem materialovedeniya AN UkrSSR.

TITLE: Coalescence during liquid phase sintering of tungsten-nickel-iron and tungsten

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755310010-8"

L 20253-66 EWP(k)/EWT(m)/EWP(e)/EWP(t) IJP(c) JD/HW/JG

ACC NR: AP5013252 SOURCE CODE: UR/0226/65/000/005/0058/0062

AUTHOR: Teodorovich, O. K.; Levchenko, G. V.; Vlasenko, O. L. 65 B

ORG: Institute of Problems of the Science of Materials, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Effect of silicon in the molding and properties of tungsten-nickel-copper contacts 27 27 27 27

SOURCE: Poroshkovaya metallurgiya, no. 5, 1965, 58-62

TOPIC TAGS: silicon containing alloy, tungsten containing alloy, copper containing alloy, nickel containing alloy, electric conductivity, tensile strength, specific resistance, powder metal molding

ABSTRACT: It was found that small additions of silicon in copper (up to 1%) improve the process of impregnating tungsten-nickel-copper contacts, and eliminate waste due to pores and cavities caused by the reducing effect of silicon and increase in the fluidity of copper. The electric conductivity, hardness, contact resistance, and tensile strength of tungsten-nickel-copper compositions change slightly on introducing small additions of silicon into copper. This is best done by impregnating tungsten-nickel-copper blanks in previously silicated graphite molds. Orig. art. has: 6 figures. [Based on author's abstract.]

SUB CODE: 11/ SUBM DATE: 20Mar64/ ORIG REF: 003/ Powder Metallurgy 18

Card 1/1 PR

L 1679-66 EWP(e)/EWT(m)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) IJP(c) JD/WW/JG

ACCESSION NR: AP5020772 UR/0226/65/000/008/0062/0069

AUTHOR: Dzykovich, I. Ya.; Makarova, R. V.; Teodorovich, O. K.; Frantsevich, I. N.

TITLE: Distribution of elements in forming metal ceramic alloys of the tungsten-nickel-iron system

SOURCE: Poroshkovaya metallurgiya, no. 8, 1965, 62-69

TOPIC TAGS: metal ceramic material, tungsten base alloy, nickel containing alloy, iron containing alloy, solubility

ABSTRACT: Samples of tunsten-nickel-iron alloys of the following composition were studied: W-10Ni(nickel 9.8%, remainder tungsten); W-7Ni-3Fe (7.2% nickel, 2.95% iron, remainder tungsten), W-5Ni-5Fe (5.0% nickel, 5.15% iron, remainder tungsten), and W-3Ni-7Fe (3.0% nickel, 7.0% iron, remainder tungsten). Powders were prepared from reduced tungsten powder with a grain size of less than 40 microns and an aqueous solution of the nitrogen salts of nickel and iron and were reduced in a hydrogen atmosphere at 450 and 850 C. They were pressed at 20 kn/cm^2 into samples with a diameter of 10 mm and a height of 10 mm and

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L 1679-66

ACCESSION NR: AP5020772

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sintered in a furnace at 1450 C for 2 hours, with rapid cooling. One face of each sample was polished for examination. Results of experiments show that, in tungsten-nickel iron alloys, the introduction of iron has an effect on the mutual solubility of tungsten and nickel. In alloys containing iron, in comparison with tungsten nickel alloys, there is observed a contraction of the heterodiffusion front. The distribution of iron with respect to the tungsten grain remains constant, independent of the composition of the alloy, and more uniform in spite of the solubility which is five times greater than the solubility of nickel in alloys with an identical ratio of elements. Orig. art. has: 4 figures and 2 tables

ASSOCIATION: Institut elektrosvarki im. E. O. Patona AN USSR (Electric Welding Institute, AN UkrSSR); Institut problem materialovedeniya AN USSR (Institute for Problems of Materials Processing, AN UkrSSR)

SUBMITTED: 06Oct64 ENCL: 00 SUB CODE: MM

NR REF SOV: 003 OTHER: 000

Card 2/2 DP

ACC NR: AR6005799 SOURCE CODE: UR/0137/65/000/010/G033/G033

AUTHOR: Frantsevich, I. N.; Teodorovich, O. K.; Boyko, Ye. B.

TITLE: Structural powder-metal products based on iron and copper

SOURCE: Ref. zh. Metallurgiya, Abs. 10G234

REF SOURCE: Sb. Poroshk. metallurgiya i metalloobrabotka. Yerevan, 1965, 35-49

TOPIC TAGS: powder alloy, iron base alloy, copper base alloy, porosity, FABRICATED STRUCTURAL METAL

ABSTRACT: The results of an investigation of the processes of producing Fe-Cu powder alloys treated with Zn, Mn and C by the infiltration method are presented. The structure of Fe-Cu alloys is characterized by the presence of macro- and microscopic defects (porosity, looseness, etc.). These defects are of diffusion origin and are associated with imperfections of intercrystalline boundaries. Treatment with Zn, Mn and C affects beneficially the structure of these alloys. Data on the physical and mechanical properties of the infiltrated alloys following various types of heat treatment are presented. The principal considerations regarding an improved utilization of structural Fe-Cu materials with defect-free structure for the fabric-

Card 1/2 UDC: 669.1'3:621.762.001

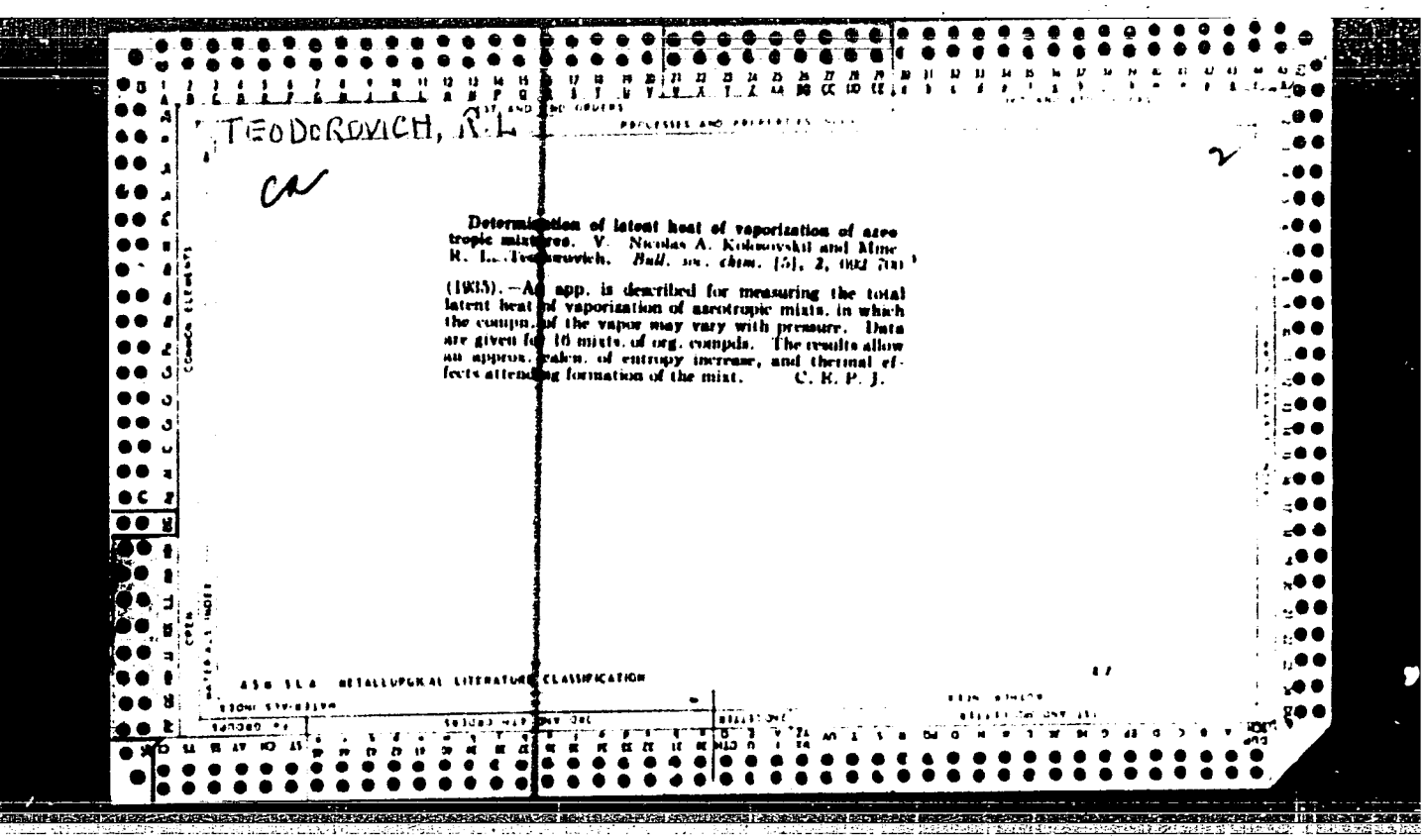
L 42040-66

ACC NR: AR6005799

ation of strong and plastic machine parts are described. I Brokhin. [Translation of abstract]

SUB CODE: 11, 13

Card 2/2



TEODOROVICH, R.L.

CA

2

Determination of latent heat of vaporization of azeotropic mixtures. V. Nicolas A. Kolossovskii and Mme R. L. Teodorovich. *Bull. soc. chim.* [5], 2, 1082-7(1935).—An app. is described for measuring the total latent heat of vaporization of azeotropic mixts. in which the compn. of the vapor may vary with pressure. Data are given for 16 mixts. of org. compds. The results allow an approx. calcn. of entropy increase, and thermal effects attending formation of the mixt. C. R. P. J.

ASTIA METALLURGICAL LITERATURE CLASSIFICATION

TEODOROVICH, V.A.

Remodeling the boiler installation of a steam power plant. Bum. prom. 33 no.1:21-23 Ja '58. (MIRA 11:2)

1. Glavnyy energetik tsellyulozno-bumazhnogo kombinata "Geroy truda." (Boilers)

TEDEYEVICH, V.I. 11 Jul 53

USSR/Geology - Granite Intrusions

"Traces of Young Intrusive Activity in Central Tuva," V.I. Tedeyevich, Council for the Study of Productive Forces, Acad Sci USSR

DAN SSSR, Vol 91, No 3, pp 635-636

States that young formations contain the entire general manotypical hydrothermal hematite mineralization of central Tuva. It is impossible to connect the mineralization with any known small intrusions of the Cenozoic basalts. Presented by Acad V. A. Obruchev 11 May 53.

261T40

TEODOROVICH, V. I.

USSR/ Geology - Book review

Card 1/1 Pub. 46 - 14/19

Authors : Teodorovich, V. I.

Title : V. V. Byelousova's report entitles, "Modern State of Theoretical Geology"

Periodical : Izv. AN SSSR. Ser. geol. 3, 155-156, May - Jun 1954

Abstract : A critical analysis is made of the report by V. V. Byelousova (1953), entitled, "The Modern State of Theoretical Geology," which describes the present status of theoretical geology and offers ideas for its further development.

Institution: .....

Submitted: December 4, 1953

TEODOROVICH, V.I.

Genesis of regional erosive terraces and tectonic movements. Biul. MOIP.Otd.geol. 36 no.6:97-98 N-D '61. (MIRA 15:7)
(Earth movements) (Terraces (Geology))

KHLOPIN, N.G.; TEODOROVICH, V.I.

Explanation of external ocular muscles. Doklady Akad. nauk SSSR 76 no.6:893-896 21 Feb 51. (CLML 20:6)

1. Presented by Academician N.N.Anichkov 23 December 1950.

TEODOROVICH, V.I.

Growth and differentiation of human myosymplasts in vitro. Arkh. anat.gist.i embr. 30 no.3:12-22 My-Je '53. (MLRA 6:6)

1Iz otdela gistologii (zav. -deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR N.G.Khlopin) Instituta eksperimental'noy meditsiny Akademi meditsinskikh nauk SSSR.

(MUSCLES, embryology,
symplasts, tissue culture)
(TISSUE CULTURE,
of embryonic musc. symplasts)

TEODOROVICH, V.I., starshiy nauchnyy sotrudnik

Separation and preservation of thrombocytes. Akt.vop.perel.krovi no.4: 69-71 '55. (MIRA 13:1)

1. Laboratoriya konservirovaniya krovi Leningradskogo instituta pereli-vaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik A.D. Belyakov).

(BLOOD PLATELETS)

TEODOROVICH, V.I., starshiy nauchnyy sotrudnik

Transfusion of suspensions of leucocytes of varying composition.
Akt.vop.perel.krovi no.4:71-74 '55. (MIRA 13:1)

1. Laboratoriya konservirovaniya krovi Leningradskogo instituta pereli-vaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik A.D. Belyakov).
(BLOOD--TRANSFUSION) (LEUCOCYTES)

USSR/Human and Animal Physiology. Blood.

Abs Jour: Ref Zhur-Biol., No 5, 1958, 36311.

Author : Teodorovich, V.I., Khokhlova, K.V.
Inst :
Title : A Simple Method of Leucocyte Suspension Preparation.

Orig Pub: Probl. hematol. i. perelivaniya kzovi, 1957, 2, No 4, 27-30, 66.

Abstract: No abstract.

Card : 1/1

TEODOROVICH, V.I.; KHOKHLOVA, K.V.

Simple method for preparing a leukocyte suspension [with summary in English, p.66]. Probl.gemat. i perel.krovi 2 no.4:27-30 Jl-Ag '57. (MLRA 10:10)

1. Iz Leningradskogo ordena Trudovogo Krasnogo Znameni nauchno-issledovatel'skogo instituta perelivaniya krovi (dir. - dotsent A.D.Belyakov, nauchnyy rukovoditel' - chlen-korrespondent AMN SSSR prof. A.N.Filatov)

(LEUKOCYTES,
suspension for transfusion, prep. of (Rus))
(BLOOD TRANSFUSION,
prep. of suspension of leukocytes (Rus))

LUGANOVA, I.S.; SEYTS, I.F.; TEODOROVICH, V.I.

Coordination of respiration and glycolysis and coupled phosphorylation in leukocytes [with summary in English]. Vop.med. khim. 3 no.6: 428-438 N-D '57. (MIRA 11:2)

1. Laboratoriya biokhimii Instituta perelivaniya krovi, Leningrad.
(LEUKOCYTES, metabolism,
resp., glycolysis & phosphorylation (Rus))

"Respiration, Glycolysis, and Conjugated Phosphorylation in Leukocytes," by I. S. Luganova, I. F. Seyts, and V. I. Teodorovich, Leningrad Scientific Research Institute for Blood Transfusion, Doklady Akademii Nauk SSSR, Vol 112, No 6, 21 Feb 57, pp 1082-1085

The article is a research report on respiration, aerobic and anaerobic glycolysis, and phosphorylation accompanying these processes in leukocytes of human blood under (1) normal conditions (donors' blood), (2) conditions of chronic and acute myeloid leukosis, and (3) during lymphadenosis.

Three sets of tests on metabolism in leukocytes were conducted: (a) leukocytes in serum, (b) leukocytes plus glucose under aerobic conditions, and (c) leukocytes plus glucose under anaerobic conditions. The leukocyte samples were suspended in plasma at pH 7.4 and 37°C in a Warburg apparatus, and respiration and lactic acid were measured.

Results proved that in all cases where direct Pasteur reaction was weakened, i.e., where respiration was incapable of completely depressing glycolytic splitting of sugar and where aerobic glycolysis existed (normal leukocytes and leukocytes in chronic myeloid leukosis), a reversed Pasteur reaction occurred. Where there was no aerobic glycolysis (lymphocytes and acute leukosis) the addition of sugar did not inhibit cellular respiration.

The authors conclude that these results coupled with research on spermatozoids, etc. can mean only that neither a high level of aerobic glycolysis in normal leukocytes and in leukocytes from the blood of patients with chronic leukosis, nor the capacity of these cells to completely guarantee the resynthesis of ATP under both aerobic and anaerobic conditions, nor the occurrence of reversed Pasteur reaction, is specific for malignancy. Furthermore, there is no causative link between these metabolic characteristics and malignancy. (U)

AUTHOR: LUGANOVA, I.S., SEYTS and TEODOROVICH, V.I. PA - 2924

TITLE: Surface-Localized Adenyl Pyrophosphatase in White Blood Cells. (Poverkhnostno-lokalizirovannaya adenilpirofosfataza v leykotsitakh, Russian)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 1, pp 149 - 151 (U.S.S.R.)

Received: 6 / 1957 Reviewed: 7 / 1957

ABSTRACT: After scientists had established the fact that adenosintri phosphatase (ATF) widely occurs in cells in connection with intracellular structures, their interest was attracted by reports of the existence of adenylpyrophosphatase (APP) on the surface of cells. It was established that yeast cells and washed sperm cells of bulls are able to split the ATF added from outside. The ferment splitted the two mobile phosphorous rest end chains with the same velocity and displayed high specifity with respect to substratum. Only in a suspension of nucleatus erozytes of pigeons is ATF dephosphorized with a higher velocity.

The experiments carried out by the authors proved the existence of highly active APP on the surface of leucozytes of various types. The activity of the ferment is displayed in such a manner that the leucozytes are able to destroy an amount of ATF equalling their own weight during the incubation period lasting 4 - 5 hours. At the same time the erythrozites of human blood have entirely lost this ability.

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PA - 2324

Surface-Localized Adenyl Pyrophosphatase in White Blood Cells.

This highly destructive activity of the leucocytes can be explained in different ways. It is interesting that not only the granulozytes displaying phagozytosic powers possess APP localized on the surface. Even non-phagozytosic lymphozytes and myeloblates (the newly discovered type of leucocytes) of the blood of patients suffering from acute leucosis showed the ability of splitting ATF added to it. Therefore, the APP activity bound on the surface is by no means connected with the phagozytosic function of the leucocytes, and their biological function remains obscure. A question of specific interest is raised by the problem of the specifity of APP to the substratum. Apparently it is sufficiently specific. APP of leucocytes is very sensitive to temperature rises. From these experiments it may be concluded that different types of leucocytes of human and animal origin carry a highly active ferment on their surface which splits extracellular ATF. The ferment is highly specific and unstable as to thermal changes. Its optimal pH value is about 9; it is suppressed by Ca^{2+} and activated by Mg^{2+}. It is not connected with the phagozotosic activity of the cells. (2 illustrations and 4 citations).

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ASSOCIATION: Leningrad Institute for Blood Transfusion
PRESENTED BY: K.M.BYKOV, Member of the Academy
SUBMITTED: 16.11.1956
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AUTHORS: Luganova, T. S., Seyts, I. F., Teodorovich, V. I. 20-3-34/59

TITLE: On the Metabolic Activity of Blood Platelets (O metabolicheskoy aktivnosti krovyanykh plastinok).

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 3, pp. 537-539 (USSR)

ABSTRACT: Although blood platelets represent an important element in the system of coagulation their chemical structure and metabolism have been investigated only to a small extent. For this reason the investigation of the structural-chemical fundamental components of these cells is of special importance. Blood platelets of the blood of healthy persons (blood donors) were used as experimental material. They were investigated as to respiration, glycolysis, circulation of phosphorus in various phosphor-organic compounds (p^{32}), the renewal of protein and of nucleinic acids at the carbon skeleton (glucose marked uniformerly by C^{14}). Moreover, O_2-absorption (in the Varburg apparatus), and formation of lactic acid (colorimetrically with p-oxydiphenyl) were measured. Adenosine-3-phosphoric acid (ATPh) was determined by means of the absorption method with coal (ref. 2). The metablic characteristics of plood

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platelets are given on table 1. The velocity of aerobic glycolysis of blood platelets amounted to approximately 65 % of the glycolysis possible under anaerobic conditions. Furthermore, it can be seen from table 1 that the respiration of blood platelets under the presence of glucose is by approximately 20% weaker than without glucose. This proves that the so-called reverse Paster (Pasteur)-reaction takes place in the blood platelets. The analogy of energetic metabolism of blood platelets with leucocytes and cancer cells is not only restricted to anaerobic glycolysis and the reverse Paster reaction. Moreover, blood platelets like leucocytes and ascyric cancer cells are able to guarantee a full-value resynthesis of ATPh and of other complicated phosphor-organic compounds on anaerobic conditions. Between these three cells so different from the biological, genetical, morphological, and chemical point of view there exist some common features which are in connection with the menticned peculiarities of metabolism and which are due to them. However, any specific connection between parameters of energy metabolism with blood platelets and malignancy are excluded. No desoxyribonucleic acid could be found in blood platelets. However, they contain ribonucleic acid in noticeable

quantities. Although this amount is considerably smaller in blood platelets (approximately 1/5) than in leucocytes the velocity of the reformation of phosphorus is by some dozens of times higher in the case of the blood platelets than with leucocytes. Phosphorus is quickly renewed also in phosphoroproteins which are contained only little in blood platelets. On the other hand the p^{32}- inclusion in to the abundantly present phospholipoids was unimportant. Up to now there is no agreement as to whether blood platelets are full-value cells or only cell splinters. It can be seen from the above results that blood platelets dispose of the whole spectrum of systems of enzymes which catalize the energetic and the plastic metabolism. Only living biological systems autonomous from the functional and structural-chemical point of view can show these properties. Inspite of the lacking of a nucleus (which is known also from other cases) blood platelets must be characterized from the biochemical point of view as biologic formations with the main features of a cell.
There are 2 tables, and 6 references, 4 of which are Slavic.

On the Metabolic Activity of Blood Platelets 20-3-34/59

ASSOCIATION: Institute for Blood Transfusions, Leningrad (Leningradskiy institut perelivaniya krovi).

PRESENTED: July 8, 1957, by L. A. Orbeli, Academician

SUBMITTED: July 3, 1957

AVAILABLE: Library of Congress

Card 4/4

LUGANOVA, I.S.; SEYTS, I.F.; TEODOROVICH, V.I.

Metabolic activity of blood platelets. Dokl. AN SSSR 118 no.3:537-539 Ja '58. (MIRA 11:4)

1.Leningradskiy institut perelivaniya krovi. Predstavleno akademikom L.A. Orbeli.
(BLOOD PLATELETS)

LUGANOVA, I.S., SHYTS, I.F., TEODOROVICH, V.I.

Metabolism in human thrombocytes [with summary in English].
Biokhimiia 23 no.3:405-411 My-Je '58 (MIRA 11:8)

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(BLOOD PLATELETS, metabolism
(Rus))

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Treatment of radiological leukopenia with leucocyte preparations. Akt.vop.perel.krovi no.6:57-63 '58. (MIRA 13:1)

1. Patologo-anatomicheskaya laboratoriya (zav. laboratoriyey - starshiy nauchnyy sotrudnik V.P. Teodorovich) i laboratoriya konservirovaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik M.A. Rozhdestvenskaya) Leningradskogo instituta perelivaniya krovi.
(LEUCOPENIA) (X RAYS--PHYSIOLOGICAL EFFECT)
(LEUCOCYTES--THERAPEUTIC USE)

TEODOROVICH, V.P., starshiy nauchnyy sotrudnik; TEODOROVICH, V.I., strashiy nauchnyy sotrudnik

Treatment of experimental leucopenias with leucocyte suspensions of varying composition. Akt.vop.perel.krovi no.6:150-157 '58. (MIRA 13:1)

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(LEUCOPENIA) (LEUCOCYTES--THERAPEUTIC USE)

TEODOROVICH, V.I., starshiy nauchnyy sotrudnik; YAKOVLEVA, O.P., nauchnyy sotrudnik

Treatment of some blood system diseases with leucocyte and thrombocyte suspensions. Akt.vop.perel.krovi no.6:158-164 '58. (MIRA 13:1)

1. Laboratoriya konservirovaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik M.A. Rozhdestvenskaya) i gematologicheskaya klinika (zav. klinikoy - prof. S.I. Sherman) Leningradskogo instituta perelivaniya krovi.

(BLOOD--DISEASES) (LEUCOCYTES--THERAPEUTIC USE)
(BLOOD PLATELETS--THERAPEUTIC USE)

TEODOROVICH, V.I., starshiy nauchnyy sotrudnik

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1. Laboratoriya konservirovaniya krovi Leningradskogo instituta pereli-vaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik M.A. Rozhdestvenskaya).
(LEUCOCYTES) (BLOOD PLATELETS)

TEODOROVICH, V.I., starshiy nauchnyy sotrudnik

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1. Laboratoriya konservirovaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik M.A. Rozhdestvenskaya) Leningradskogo instituta perelivaniya krovi.

(LEUCOCYTES)

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1. Laboratoriya konservirovaniya krovi (zav. laboratoriyey - starshiy nauchnyy sotrudnik M.A. Rozhdestvenskaya) Leningradskogo instituta perelivaniya krovi.

(LEUCOCYTES)

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(LEYCOCYTES)

TEODOROVICH, V.I., starshiy nauchnyy sotrudnik

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1. Laboratoriya konservirovaniya krovi Leningradskogo instituta perelivaniya krovi (zav. labor. - starshiy nauchnyy sotrudnik M.A. Rozhdestvenskaya).

(LEUCOCYTES) (LEUKEMIA)

TEODOROVICH, V. I., kand. med. nauk; BEZNOSIKOV, B. O., kand. biolog. nauk (Leningrad)

Morphological and functional study of the thrombocytes in essential polycythemia and thrombocytopenia (Werlhof's disease). Klin. med. no.6:77-83 '61. (MIRA 14:12)

1. Iz Leningradskogo ordena Trudovogo Krasnogo Znameni instituta perelivaniya krovi (dir. - dotsent A. D. Belyakov, nauchnyy rukovoditel' - zasluzhennyy deyatel' nauki chlen-korrespondent AMN SSSR prof. A. N. Filatov)

(PURPURA) (ERYTHREMIA) (BLOOD PLATELETS)